



2012 Minerals Yearbook

UGANDA

THE MINERAL INDUSTRY OF UGANDA

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In 2012, the East African country of Uganda played a significant role in the world's production of pumice and pumicite. The country's share of the world's mine production of these mineral commodities amounted to 4% (Crangle, 2013). Other domestically significant mineral processing operations included those for cement. Uganda was not a globally significant consumer of mineral commodities in 2012.

The mineral industry of Uganda was governed by the Mining Act, 2003, and the Petroleum (Exploration and Production Act), 1985. The Ministry of Energy and Mineral Development was responsible for geologic mapping, issuing exploration and mining licenses, and administering the Mining Act, 2003, and the Petroleum (Exploration and Production Act), 1985, and their accompanying regulations. Ownership of minerals is vested in the Government. As of late 2012, a total of 726 mineral licenses, including prospecting, exploration, retention, and mining licenses, were active (Mining Journal, 2012).

In early February, the Government announced that the Petroleum Exploration, Development and Production Bill, 2012, had been submitted to Parliament to begin the process for development of the country's petroleum industry. If passed, the law will regulate petroleum exploration, development, and production activities. The law will also establish the Petroleum Authority of Uganda and the National Oil Company to represent the Government's commercial interests; it will also determine the rules for the sharing of petroleum royalties between the central government and local authorities as well as for environmental restoration in drilling areas (Goitom, 2012).

Minerals in the National Economy

In 2012, the manufacturing sector accounted for 8.1% of the gross domestic product, and the mining and quarrying sector, 0.3%. The value of output in the mining sector decreased by 2.2% in 2012. Petroleum products accounted for 5.8% of Uganda's total value of exports; cement, 4.5%; iron and steel, 3.5%; cobalt, 0.6%; and gold, 0.4%. All petroleum products and most gold exports were reexports. Petroleum products accounted for 22.2% of Uganda's total value of imports; iron and steel, 4.1%; nonmetallic mineral products, 2.7%; and fertilizers and crude minerals other than coal, gemstones, and petroleum, 1.1% (Uganda Bureau of Statistics, 2013, p. 172, 207–208, 215–216).

Production

In 2012, the production of mined tungsten increased by 160%; kaolin, by 48%; and iron ore, by 38%. Cobalt metal output decreased by 44%; aggregate, by 43%; vermiculite, by 41%; limestone, by 35%; and pozzolanic material, by 33%. Tin mining shut down in 2012 (table 1).

Structure of the Mineral Industry

Most of Uganda's mining and mineral processing facilities were privately owned, including the cement and steel plants, the lead refinery, and the vermiculite mine. The Government held a 25% share in the Kasese cobalt refinery. Artisanal miners produced salt at Lake Katwe (table 2).

Commodity Review

Metals

Cobalt.—MFC Industrial Ltd. of Canada purchased a 75% share in Kasese Cobalt Company Ltd. (KCCL) from Blue Earth Refineries Ltd. of Hong Kong in the first quarter of 2012. KCCL produced cobalt metal from a cobalt-rich pyrite stockpile from the Kilembe copper mine tailings near Kasese using a bioleaching and a solvent extraction and electrowinning process. The company had a capacity of 1,000 metric tons per year (t/yr). The stockpile was likely to be depleted in the second half of 2013 (MFC Industrial Ltd., 2012, p. 8).

Copper.—In late 2012, the Government invited bids to restart production at the Kilembe mines near the border of the Democratic Republic of the Congo [Congo (Kinshasa)]. The mines had been abandoned in the 1980s because of lower copper prices in the global market and political instability. The Government expected the winner of the bidding process to invest about \$100 million in the project. Resources at Kilembe were estimated to be about 4 million metric tons (Mt) at grades of 1.98% copper and 0.17% cobalt (Mining Review Africa, 2012).

Tin.—Artisanal miners produced small amounts of cassiterite in recent years. In September 2012, Starfield Metals Ltd. of Australia was granted a mining license for properties located about 80 kilometers south of Kampala. The company planned to start large-scale mining in the first half of 2014 and to increase production to more than 800 t/yr of tin in concentrate by mid-2015 and to between 900 and 1,000 t/yr by mid-2016 (Starfield Metals Ltd., undated).

Tungsten.—Krone Uganda Ltd. mined wolframite at the Bjordal Mines in western Uganda. The Bjordal Mines had a capacity of about 240 t/yr of wolframite, which had tungsten content of between 120 and 130 t/yr. Krone was considering an expansion to more than 600 t/yr of wolframite (Krone Uganda Ltd., 2012).

Industrial Minerals

Cement.—In recent years, increases in production were attributable to capacity expansions at Tororo Cement Industries Ltd. to 2.2 million metric tons per year (Mt/yr) from 1.1 Mt/yr, and at Hima Cement Industries Ltd., to 850,000 t/yr from 350,000 t/yr. In November 2012, DAO Group of Saudi Arabia

started construction of a new plant in Baduka District with an initial capacity of about 270,000 t/yr (International Cement Review, 2013).

Domestic demand for cement amounted to about 1.7 Mt in 2012 compared with 1.67 Mt in 2011 and 1.15 Mt in 2008. Cement prices increased to \$237 per metric ton in December 2012 from \$200 per metric ton in December 2010 because of increases in input and transportation costs and the depreciation of the Ugandan shilling against the dollar. Many companies in the construction sector postponed housing projects because of increased cement prices (International Cement Review, 2013; Uganda Bureau of Statistics, 2013, p. 49).

Vermiculite.—Gulf Industrials Ltd. of Australia operated the Namekara Mine near Tororo. The company had planned to increase production to the full capacity of 30,000 t/yr. Gulf put the mine on care-and-maintenance status in October, however, as the company that had exclusive purchasing rights for Namekara's vermiculite stopped purchases because of adverse economic conditions in Europe. Resources at Namekara were estimated to be 54.9 Mt at a grade of 26.7% vermiculite (Gulf Industrials Ltd., 2012).

Mineral Fuels

Natural Gas and Petroleum.—Reserves of crude petroleum were estimated to be 2.5 billion barrels in the Lake Albertine Basin at the end of 2012, and reserves of natural gas, 14 billion cubic meters. Uganda did not produce crude or refined petroleum or natural gas in 2012 (Xu and Bell, 2013).

In early 2012, China National Offshore Oil Corp. (CNOOC) of China and Total S.A of France each purchased a one-third share in Exploration Area (EA) 1, EA2, and EA3A on Lake Albert, which were held by Tullow Oil plc of the United Kingdom. Total became the operator of EA2, and CNOOC became the operator of EA3A. The companies had planned to start small-scale natural gas and crude petroleum production for the domestic market in early 2013 and large-scale production in 2016; however, an investment decision had not been made as of the end of 2012 (Petroleum Economist, 2012a, b; Tullow Oil plc, 2013, p. 12).

CNOOC was engaged in discussions with the Government concerning the building of a new petroleum refinery that

would process crude petroleum produced at Lake Albert. The Government hoped that a refinery would be built in three stages, with a final capacity of 200,000 barrels per day. The cost of the refinery, which would be shared by CNOOC, Total, and Tullow, was estimated to be \$1.5 billion. Production could start as early as 2015 (Petroleum Economist, 2012a, b).

Outlook

Uganda's mineral industry could expand in the next few years with the increase in iron ore, tin, and tungsten mining. The production of cement, limestone, and other construction materials is also likely to expand because of the increase in cement demand. Crude and refined petroleum production could also start in the near future.

References Cited

- Crangle, R.D., Jr., 2013, Pumice and pumicite: U.S. Geological Survey Mineral Commodity Summaries 2013, p. 124–125.
- Goitom, Hanibal, 2012, Uganda—Parliament considering petroleum bill: Law Library of Congress, February 10. (Accessed April 16, 2014, at http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205402986_text.)
- Gulf Industrials Ltd., 2012, First quarter activities review: Sydney, New South Wales, Australia, Gulf Industrials Ltd. press release, October 31, 2 p.
- International Cement Review, 2013, Uganda, *in* The global cement report, 10th ed.: Dorking, United Kingdom, International Cement Review, p. 356–357.
- Krone Uganda Ltd., 2012, About us: Krone Uganda Ltd. (Accessed April 1, 2014, at <http://www.kroneuganda.com/aboutus.html>.)
- MFC Industrial Ltd., 2012, MFC Industrial Ltd. reports first quarter results for 2012: Vancouver, British Columbia, Canada, MFC Industrial Ltd. press release, May 15, 16 p.
- Mining Journal, 2012, Current mining projects, *in* Mining Journal special publication—Uganda: Mining Journal, December 7, p. 9.
- Mining Review Africa, 2012, Uganda calls for bids to re-start copper mines: Mining Review Africa, issue 12, December, p. 6.
- Petroleum Economist, 2012a, News in brief—Uganda: Petroleum Economist, v. 79, no. 2, March, p. 44.
- Petroleum Economist, 2012b, News in brief—Uganda: Petroleum Economist, v. 79, no. 3, April, p. 39.
- Starfield Minerals Ltd., [undated], About us: Starfield Minerals Ltd. (Accessed April 16, 2014, at <http://www.starfieldmetals.com.au/company.html>.)
- Tullow Oil plc, 2013, 2012 annual report & accounts: London, United Kingdom, Tullow Oil plc, 192 p.
- Uganda Bureau of Statistics, 2013, 2013 statistical abstract: Kampala, Uganda, Uganda Bureau of Statistics, 240 p.
- Xu, Conglin, and Bell, Laura, 2013, Worldwide reserves, oil production post modest rise: Oil & Gas Journal, v. 111, no. 12, December 2, p. 30–33.

TABLE 1
UGANDA: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2008	2009	2010	2011	2012 ^e
Aggregate, syenitic	11,000	14,027	14,338	9,765	5,528 ³
Cement, hydraulic	1,193,361	1,162,241	1,347,327	1,666,235	1,600,000
Clay, kaolin	3,738	4,721	27,237	20,883	30,806 ³
Cobalt, refined	663	673	624	673	374 ³
Gold, refined kilograms	--	--	324	325 ^e	325
Gypsum	84	--	--	--	--
Iron ore	1,740	972	3,795	2,134	2,949 ³
Lead, mine output, metal content	20	--	--	--	--
Limestone	520,000	588,945	634,673	932,348	608,295 ³
Niobium (columbium) and tantalum, ore and concentrate:					
Gross weight kilograms	80	50	10	10 ^e	10
Nb content ^e do.	11	7	1	1	1
Ta content ^e do.	7	4	1	1	1
Pozzolanic material	360,000	440,292	446,316	690,911	465,969 ³
Steel ^e	7,000	7,000	7,000	7,000	7,000
Tin, placer	40	--	32	10 ^e	--
Tungsten, mine output, W content	48	9	55	10	26 ³
Vermiculite	--	--	1,121	7,960	4,732 ³

^eEstimated; estimated data are rounded to no more than three significant digits. do. Ditto. -- Zero.

¹Table includes data available through July 31, 2013.

²In addition to the commodities listed, corundum, refined lead, lime, marble, sand and gravel, silica sand, and soapstone are presumably produced, but available information is inadequate to make reliable estimates of output.

³Reported figure.

TABLE 2
UGANDA: STRUCTURE OF THE MINERAL INDUSTRY IN 2012

(Metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Cement		Tororo Cement Industries Ltd.	Tororo	2,200,000.
Do.		Hima Cement Industries Ltd. (Bamburi Cement Ltd., 70%)	Kasese	850,000.
Cobalt, refined		Kasese Cobalt Company Ltd. (KCCL) (MFC Industrial Ltd., 75%, and Government, 25%)	do.	1,000.
Gold:				
Mine, placer	kilograms	Artisanal miners	Burama Ridge, Isingiro and Ntungamo District	NA.
Refined	do.	Victoria Gold Star Ltd.	Kampala	21,000.
Lead, refined, secondary		Uganda Batteries Ltd.	do.	1,000.
Niobium (columbium) and tantalum	kilograms	3T Mining Ltd.	Wampewo ¹	27 ^c tantalum; 5 ^c niobium.
Salt		Artisanal miners	Lake Katwe	15,000.
Soapstone		African Minerals Ltd.	Moroto	NA.
Steel:²				
Crude		Steel Rolling Mills Ltd. (subsidiary of Alam Group Ltd.)	Jinja	72,000.
Do.		Steel Corp. of East Africa Ltd. (subsidiary of Madhvani Group)	do.	50,000.
Billet		Steel Rolling Mills Ltd.	do.	72,000.
Do.		Steel Corp. of East Africa Ltd.	do.	50,000.
Rolled		Steel Rolling Mills Ltd.	do.	72,000.
Do.		Steel Corp. of East Africa Ltd.	do.	30,000.
Do.		BM Technical Services Ltd.	Mbarara	20,000.
Do.		Sembule Steel Mills Ltd.	Kampala	20,000.
Stone, crushed		Hima Cement Industries Ltd.	Kasese district	NA.
Do.		Kilembe Mines Ltd.	do.	NA.
Do.		Tororo Cement Industries Ltd.	Tororo district	NA.
Do.		Zzimwe Construction Ltd.	Mukono district	690,000.
Tin		Various artisanal	Western Region ¹	NA.
Wolframite, tungsten content		Krone Uganda Ltd.	Bjrdal Mine in Western Region	120.
Vermiculite		Gulf Industrials Ltd.	Namekara ¹	30,000.

^cEstimated. Do., do. Ditto. NA Not available.

¹Not operating at the end of 2012.

²In addition to its crude, billet, and rolled steel facilities, Uganda has a galvanized steel plant with a capacity of 30,000 metric tons per year.